

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: 09/601,852
Source: IFW/6
Date Processed by STIC: 5-18-05

ENTERED

Raw Sequence Listing before editing,
for reference only



IFW16

RAW SEQUENCE LISTING

DATE: 05/18/2005

PATENT APPLICATION: US/09/601,852

TIME: 15:29:58

Input Set : A:\pto.kd.txt

Output Set: N:\CRF4\05182005\I601852.raw

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3 <110> APPLICANT: DSM NV
5 <120> TITLE OF INVENTION: NOVEL ENDO-XYLOGALACTURONASE
7 <130> FILE REFERENCE: N73992A EP SMW DP
C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/601,852
C--> 10 <141> CURRENT FILING DATE: 2000-12-19
12 <150> PRIOR APPLICATION NUMBER: EP 98300952.3
13 <151> PRIOR FILING DATE: 1998-02-10
15 <160> NUMBER OF SEQ ID NOS: 2
17 <170> SOFTWARE: PatentIn Ver. 2.1
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 1602
21 <212> TYPE: DNA
22 <213> ORGANISM: Aspergillus tubigensis
24 <220> FEATURE:
25 <221> NAME/KEY: CDS
26 <222> LOCATION: (98)..(1318)
28 <400> SEQUENCE: 1
29 gcttgtgttt cttaggagaa ttattattct tttgttatgt tgcgcttgta gttggaaaag 60
31 gtgaagagac aaagcttgaa ttccgaaatc gctcatc atg gcg cta tat cgt aac 115
32                                     Met Ala Leu Tyr Arg Asn
33                                     1               5
35 ctc tac ctt ctg gcc agc ctt ggg cta agc agt gct gct ccc tcc aag 163
36 Leu Tyr Leu Leu Ala Ser Leu Gly Leu Ser Ser Ala Ala Pro Ser Lys
37               10               15               20
39 gtc cag cga gcc ccg gat tct tcc att cat gct cgc gct gtc tgt acc 211
40 Val Gln Arg Ala Pro Asp Ser Ser Ile His Ala Arg Ala Val Cys Thr
41               25               30               35
43 ccg acc gca gga ggc gat tgc tcc acc gac gat gtc ccc gcc atc acc 259
44 Pro Thr Ala Gly Gly Asp Ser Ser Thr Asp Asp Val Pro Ala Ile Thr
45               40               45               50
47 gag gcc ctc agc tgc tgc gga aat ggt ggc acc atc gtc ttc ccc gag 307
48 Glu Ala Leu Ser Ser Cys Gly Asn Gly Gly Thr Ile Val Phe Pro Glu
49 55               60               65               70
51 ggc agc acc tac tac ctc aac agt gtg ctg gac ttg ggc agc tgc agt 355
54 Gly Ser Thr Tyr Tyr Leu Asn Ser Val Leu Asp Leu Gly Ser Cys Ser
55               75               80               85
57 gat tgc gac atc cag gtg gaa ggt ctt ctg aag ttc gcc agc gat acc 403
58 Asp Cys Asp Ile Gln Val Glu Gly Leu Leu Lys Phe Ala Ser Asp Thr
59               90               95               100
61 gat tac tgg agc ggt cgc act gcc atg atc agt gtt tcc aat gta gat 451
62 Asp Tyr Trp Ser Gly Arg Thr Ala Met Ile Ser Val Ser Asn Val Asp
63               105               110               115
65 ggt ttg aag ctg cgc tca ttg act gga tct ggt gtc att gat ggc aat 499

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66 Gly Leu Lys Leu Arg Ser Leu Thr Gly Ser Gly Val Ile Asp Gly Asn
67      120                      125                      130
69 ggc cag gat gcg tgg gat ctc ttt gct tcg gac agt agt tac tca cgc      547
70 Gly Gln Asp Ala Trp Asp Leu Phe Ala Ser Asp Ser Ser Tyr Ser Arg
71 135                      140                      145                      150
73 ccg acg ctc ttg tac atc act ggc ggc agc aac cta gaa atc tcc ggg      595
74 Pro Thr Leu Leu Tyr Ile Thr Gly Gly Ser Asn Leu Glu Ile Ser Gly
75                      155                      160                      165
77 ctg cgt caa aag aat cca cct aac gtg ttc aac tcg gtc aag ggt ggc      643
78 Leu Arg Gln Lys Asn Pro Pro Asn Val Phe Asn Ser Val Lys Gly Gly
79                      170                      175                      180
81 gcc act aat gtc gtc ttc tcc aac ctg aag atg gat gcc aac tcc aag      691
82 Ala Thr Asn Val Val Phe Ser Asn Leu Lys Met Asp Ala Asn Ser Lys
83                      185                      190                      195
85 tcg gac aat ccg ccc aag aac act gat ggg ttc gac att ggc gag agt      739
86 Ser Asp Asn Pro Pro Lys Asn Thr Asp Gly Phe Asp Ile Gly Glu Ser
87      200                      205                      210
89 acc tat gtg acc atc acc gag gtc acc gta gtc aac gat gac gac tgt      787
90 Thr Tyr Val Thr Ile Thr Glu Val Thr Val Val Asn Asp Asp Asp Cys
91 215                      220                      225                      230
93 gtc gcc ttc aag ccc agt tcc aac tac gtg aca gtg gac acg atc agc      835
94 Val Ala Phe Lys Pro Ser Ser Asn Tyr Val Thr Val Asp Thr Ile Ser
95                      235                      240                      245
97 tgc acc ggc tcc cat gga att tcc gtg gga tca tta gga aag tcg agc      883
98 Cys Thr Gly Ser His Gly Ile Ser Val Gly Ser Leu Gly Lys Ser Ser
99                      250                      255                      260
101 gac gac tcg gtc aag aac att tat gtc acg ggc gca act atg atc aac      931
102 Asp Asp Ser Val Lys Asn Ile Tyr Val Thr Gly Ala Thr Met Ile Asn
103                      265                      270                      275
107 tcc acc aaa gcc gcc ggg atc aag act tat ccg agt gga ggc gac cac      979
108 Ser Thr Lys Ala Ala Gly Ile Lys Thr Tyr Pro Ser Gly Gly Asp His
109                      280                      285                      290
111 ggt acc tcc acg gtc agc aat gtg acc ttc aac gat ttc act gtg gac      1027
112 Gly Thr Ser Thr Val Ser Asn Val Thr Phe Asn Asp Phe Thr Val Asp
113 295                      300                      305                      310
115 aac tcc gac tat gcc ttc cag atc cag agc tgc tat ggc gag gac gat      1075
116 Asn Ser Asp Tyr Ala Phe Gln Ile Gln Ser Cys Tyr Gly Glu Asp Asp
117                      315                      320                      325
119 gac tat tgc gag gaa aac ccg ggc aac gcc aaa ctg act gat ata gtc      1123
120 Asp Tyr Cys Glu Glu Asn Pro Gly Asn Ala Lys Leu Thr Asp Ile Val
121                      330                      335                      340
123 gtg tca agc ttc agt ggg aca acc agt gac aag tac gat ccg gtc gtg      1171
124 Val Ser Ser Phe Ser Gly Thr Thr Ser Asp Lys Tyr Asp Pro Val Val
125                      345                      350                      355
127 gcc aac ctc gac tgc ggt gcg gat gga act tgt ggc atc tcc atc agt      1219
128 Ala Asn Leu Asp Cys Gly Ala Asp Gly Thr Cys Gly Ile Ser Ile Ser
129                      360                      365                      370
131 ggg ttc gat gtc aag gcg cca tcg ggc aag tct gaa gtg ttg tgc gcc      1267
132 Gly Phe Asp Val Lys Ala Pro Ser Gly Lys Ser Glu Val Leu Cys Ala

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133 375          380          385          390
135 aac acc ccg tct gat ttg ggc gtc act tgc act tcg ggg gct tcg ggc 1315
136 Asn Thr Pro Ser Asp Leu Gly Val Thr Cys Thr Ser Gly Ala Ser Gly
137          395          400          405
139 taa atagcttttg ccgggttgc ttctgaatcc actgagtgga ggtcttcttc 1368
142 gggtttgata ttttgatagg tcgtgtgtat agcagaatgt gacaatagaa ttagtgaaat 1428
144 tgccattctt ttcgaaagac aaaaaaaaaa aaaaaaaaaa aaaaaaaact cgagaattta 1488
146 tacttagata agtatgtact tacagggtata tttctatgag atactgatgt atacatgcat 1548
148 gataatattt aaacggttat tagtgccgat tgtcttgtgc gataatgacg ttcc 1602
150 <210> SEQ ID NO: 2
151 <211> LENGTH: 406
152 <212> TYPE: PRT
153 <213> ORGANISM: Aspergillus tubigensis
155 <400> SEQUENCE: 2
156 Met Ala Leu Tyr Arg Asn Leu Tyr Leu Leu Ala Ser Leu Gly Leu Ser
157 1 5 10 15
160 Ser Ala Ala Pro Ser Lys Val Gln Arg Ala Pro Asp Ser Ser Ile His
161 20 25 30
163 Ala Arg Ala Val Cys Thr Pro Thr Ala Gly Gly Asp Ser Ser Thr Asp
164 35 40 45
166 Asp Val Pro Ala Ile Thr Glu Ala Leu Ser Ser Cys Gly Asn Gly Gly
167 50 55 60
169 Thr Ile Val Phe Pro Glu Gly Ser Thr Tyr Tyr Leu Asn Ser Val Leu
170 65 70 75 80
172 Asp Leu Gly Ser Cys Ser Asp Cys Asp Ile Gln Val Glu Gly Leu Leu
173 85 90 95
175 Lys Phe Ala Ser Asp Thr Asp Tyr Trp Ser Gly Arg Thr Ala Met Ile
176 100 105 110
178 Ser Val Ser Asn Val Asp Gly Leu Lys Leu Arg Ser Leu Thr Gly Ser
179 115 120 125
181 Gly Val Ile Asp Gly Asn Gly Gln Asp Ala Trp Asp Leu Phe Ala Ser
182 130 135 140
184 Asp Ser Ser Tyr Ser Arg Pro Thr Leu Leu Tyr Ile Thr Gly Gly Ser
185 145 150 155 160
187 Asn Leu Glu Ile Ser Gly Leu Arg Gln Lys Asn Pro Pro Asn Val Phe
188 165 170 175
190 Asn Ser Val Lys Gly Gly Ala Thr Asn Val Val Phe Ser Asn Leu Lys
191 180 185 190
193 Met Asp Ala Asn Ser Lys Ser Asp Asn Pro Pro Lys Asn Thr Asp Gly
194 195 200 205
196 Phe Asp Ile Gly Glu Ser Thr Tyr Val Thr Ile Thr Glu Val Thr Val
197 210 215 220
199 Val Asn Asp Asp Asp Cys Val Ala Phe Lys Pro Ser Ser Asn Tyr Val
200 225 230 235 240
202 Thr Val Asp Thr Ile Ser Cys Thr Gly Ser His Gly Ile Ser Val Gly
203 245 250 255
205 Ser Leu Gly Lys Ser Ser Asp Asp Ser Val Lys Asn Ile Tyr Val Thr
206 260 265 270
208 Gly Ala Thr Met Ile Asn Ser Thr Lys Ala Ala Gly Ile Lys Thr Tyr

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209          275          280          285
213 Pro Ser Gly Gly Asp His Gly Thr Ser Thr Val Ser Asn Val Thr Phe
214          290          295          300
216 Asn Asp Phe Thr Val Asp Asn Ser Asp Tyr Ala Phe Gln Ile Gln Ser
217 305          310          315          320
219 Cys Tyr Gly Glu Asp Asp Asp Tyr Cys Glu Glu Asn Pro Gly Asn Ala
220          325          330          335
222 Lys Leu Thr Asp Ile Val Val Ser Ser Phe Ser Gly Thr Thr Ser Asp
223          340          345          350
225 Lys Tyr Asp Pro Val Val Ala Asn Leu Asp Cys Gly Ala Asp Gly Thr
226          355          360          365
228 Cys Gly Ile Ser Ile Ser Gly Phe Asp Val Lys Ala Pro Ser Gly Lys
229          370          375          380
231 Ser Glu Val Leu Cys Ala Asn Thr Pro Ser Asp Leu Gly Val Thr Cys
232 385          390          395          400
234 Thr Ser Gly Ala Ser Gly
235          405

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/601,852

DATE: 05/18/2005

TIME: 15:29:59

Input Set : A:\pto.kd.txt

Output Set: N:\CRF4\05182005\I601852.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application Number

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date



IFW16

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/601,852

DATE: 05/18/2005

TIME: 15:13:19

Input Set : A:\PTO.YF.txt

Output Set: N:\CRF4\05182005\I601852.raw

3 <110> APPLICANT: DSM NV
 5 <120> TITLE OF INVENTION: NOVEL ENDO-XYLOGALACTURONASE
 7 <130> FILE REFERENCE: N73992A EP SMW DP
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/601,852
 C--> 10 <141> CURRENT FILING DATE: 2000-12-19
 12 <150> PRIOR APPLICATION NUMBER: EP 98300952.3
 13 <151> PRIOR FILING DATE: 1998-02-10
 15 <160> NUMBER OF SEQ ID NOS: 2
 17 <170> SOFTWARE: PatentIn Ver. 2.1

Does Not Comply
 Corrected Diskette Needed

(pg. 2)

ERRORED SEQUENCES

150 <210> SEQ ID NO: 2
 151 <211> LENGTH: 406
 152 <212> TYPE: PRT
 153 <213> ORGANISM: Aspergillus tubigensis
 155 <400> SEQUENCE: 2
 156 Met Ala Leu Tyr Arg Asn Leu Tyr Leu Leu Ala Ser Leu Gly Leu Ser
 157 1 5 10 15
 160 Ser Ala Ala Pro Ser Lys Val Gln Arg Ala Pro Asp Ser Ser Ile His
 161 20 25 30
 163 Ala Arg Ala Val Cys Thr Pro Thr Ala Gly Gly Asp Ser Ser Thr Asp
 164 35 40 45
 166 Asp Val Pro Ala Ile Thr Glu Ala Leu Ser Ser Cys Gly Asn Gly Gly
 167 50 55 60
 169 Thr Ile Val Phe Pro Glu Gly Ser Thr Tyr Tyr Leu Asn Ser Val Leu
 170 65 70 75 80
 172 Asp Leu Gly Ser Cys Ser Asp Cys Asp Ile Gln Val Glu Gly Leu Leu
 173 85 90 95
 175 Lys Phe Ala Ser Asp Thr Asp Tyr Trp Ser Gly Arg Thr Ala Met Ile
 176 100 105 110
 178 Ser Val Ser Asn Val Asp Gly Leu Lys Leu Arg Ser Leu Thr Gly Ser
 179 115 120 125
 181 Gly Val Ile Asp Gly Asn Gly Gln Asp Ala Trp Asp Leu Phe Ala Ser
 182 130 135 140
 184 Asp Ser Ser Tyr Ser Arg Pro Thr Leu Leu Tyr Ile Thr Gly Gly Ser
 185 145 150 155 160
 187 Asn Leu Glu Ile Ser Gly Leu Arg Gln Lys Asn Pro Pro Asn Val Phe
 188 165 170 175
 190 Asn Ser Val Lys Gly Gly Ala Thr Asn Val Val Phe Ser Asn Leu Lys
 191 180 185 190
 193 Met Asp Ala Asn Ser Lys Ser Asp Asn Pro Pro Lys Asn Thr Asp Gly

RAW SEQUENCE LISTING

DATE: 05/18/2005

PATENT APPLICATION: US/09/601,852

TIME: 15:13:19

Input Set : A:\PTO.YF.txt

Output Set: N:\CRF4\05182005\I601852.raw

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194      195      200      205
196 Phe Asp Ile Gly Glu Ser Thr Tyr Val Thr Ile Thr Glu Val Thr Val
197      210      215      220
199 Val Asn Asp Asp Asp Cys Val Ala Phe Lys Pro Ser Ser Asn Tyr Val
200 225      230      235      240
202 Thr Val Asp Thr Ile Ser Cys Thr Gly Ser His Gly Ile Ser Val Gly
203      245      250      255
205 Ser Leu Gly Lys Ser Ser Asp Asp Ser Val Lys Asn Ile Tyr Val Thr
206      260      265      270
208 Gly Ala Thr Met Ile Asn Ser Thr Lys Ala Ala Gly Ile Lys Thr Tyr
209      275      280      285
213 Pro Ser Gly Gly Asp His Gly Thr Ser Thr Val Ser Asn Val Thr Phe
214      290      295      300
216 Asn Asp Phe Thr Val Asp Asn Ser Asp Tyr Ala Phe Gln Ile Gln Ser
217 305      310      315      320
219 Cys Tyr Gly Glu Asp Asp Asp Tyr Cys Glu Glu Asn Pro Gly Asn Ala
220      325      330      335
222 Lys Leu Thr Asp Ile Val Val Ser Ser Phe Ser Gly Thr Thr Ser Asp
223      340      345      350
225 Lys Tyr Asp Pro Val Val Ala Asn Leu Asp Cys Gly Ala Asp Gly Thr
226      355      360      365
228 Cys Gly Ile Ser Ile Ser Gly Phe Asp Val Lys Ala Pro Ser Gly Lys
229      370      375      380
231 Ser Glu Val Leu Cys Ala Asn Thr Pro Ser Asp Leu Gly Val Thr Cys
232 385      390      395      400
234 Thr Ser Gly Ala Ser Gly
235      405
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VERIFICATION SUMMARY

DATE: 05/18/2005

PATENT APPLICATION: US/09/601,852

TIME: 15:13:20

Input Set : A:\PTO.YF.txt

Output Set: N:\CRF4\05182005\I601852.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application Number

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:239 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2